St. Louis County (C)
McDonnell Douglas Corp.
(Tract I)

STATE OF MISSOURI
Mel Carnahan, Governor • David A. Shorr, Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
St. Louis Regional Office
10805 Sunset Office Drive, Suite 100 St. Louis, MO 63127-1017
(314)822-0101
FAX (314)822-0943

April 25, 1996

Mr. Joseph Haake, Group Manager
Environmental and Hazardous Materials Services
McDonnell Douglas Corporation
Dept. 064C, Bldg. 110, MailCode 1111099
P.O. Box 516
St. Louis, MO 63166

Dear Mr. Haake: L.O.W. #96-SL.015

Enclosed is a report of an inspection conducted by Mr. Joe Trunko of my staff. The section titled "UNSATISFACTORY FEATURES" lists violations noted during the inspection and outlines steps the inspector has determined will correct those violations.

By May 24, 1996, a written response must be submitted to this office that describes the actions taken to correct the unsatisfactory features noted in the report. Please direct the response to Mr. Joe Trunko. A copy of your response should also be forwarded to Ms. Kathy Flippin, Chief-Enforcement Unit, Hazardous Waste Program, P.O. Box 176, Jefferson City, MO 65102.

Should you have any questions, please call Mr. Trunko at (314) 822-0101.

Sincerely,

ST. LOUIS REGIONAL OFFICE

Robert S. P. Eck
Regional Director

RSPE/JLT/jh
pf
Enclosures

c: HWP

RESOURCE CONSERVATION AND RECOVERY ACT
AND
MISSOURI HAZARDOUS WASTE MANAGEMENT LAW
COMPLIANCE EVALUATION INSPECTION REPORT

FACILITY

McDonnell Douglas Corporation
Tract I
P.O. Box 516
St. Louis, MO 63166
(314) 232-3319

EPA ID#: MOD000818963
MO Generator ID#: 001001
Permit #: OSO 062284 002
Resource Recovery #: 0268-A
MO Transporter ID#: H-1039

PARTICIPANTS

Missouri Department of Natural Resources (MDNR)	Joseph L. Trunko Environmental Specialist
McDonnell Douglas Corporation	Joseph Haake, Group Manager Environmental & Hazardous Materials Services

INTRODUCTION

On April 17, 1996, an inspection was conducted at McDonnell Douglas Corporation-Tract I (MCDC) located in St. Louis County, Missouri. The inspection was conducted under the authority of the Resource Conservation and Recovery Act (RCRA) of 1976 and Sections 260.375(9) and 260.377 of the Missouri Hazardous Waste Management Law (1977) as amended. The inspection was confined to facets of the facility operation related to hazardous waste management.

Storage Permit #OSO 062284 002, issued to MCDC on March 22, 1984, expired on June 22, 1994. A renewal Part B application was submitted to the Department. A technical review of the application started in August 1995.

FACILITY DESCRIPTION

MCDC is a manufacturer of military aircraft. Operations at the facility include chemical processing (conversion coating, etching, pickling, and electroplating), machining of parts, composite manufacturing, parts degreasing and painting, aircraft assembly and painting, aircraft testing (flight ramps), industrial wastewater pretreatment, and a boiler house.

MCDC operates five days per week, 24 hours per day, three shifts per day. A site map of the facility is attached.

MCDC is a large quantity generator of hazardous waste. Numerous waste streams are generated. However, the largest waste streams include corrosive waste, emulsified cutting oil, paint solids,

solvent and paint waste, and wastewater treatment sludge. A summary of the hazardous waste streams generated at this facility is attached.

MCDC is also permitted to store hazardous waste for greater than 90 days. Waste generated from on-site as well as waste from off-site facilities is stored. Only waste from MCDC facilities is accepted from off-site. The waste accepted from off-site is similar to that described above. Hazardous waste is transported to Tract I by MCDC (Missouri Transporter ID #H-1039).

MCDC stores on-site generated waste (drum related) at three less-than-90-day storage areas. These areas are located on the east side of Building 2, at Building 48, and at Building 51, respectively. Waste solvents and paints are accumulated in satellite drums located at the paint shops in Buildings 2, 27, and 48. Oils are also accumulated at numerous satellite locations (mainly in Buildings 27, 29A, 220, 2, 42, and 48). When full, these containers are transferred to one of the less-than-90-day storage areas or directly to the permitted storage area. Waste oils generated in the general flight ramp area are stored at a separate storage shed located north of Building 40.

Solids contaminated with paint and/or solvents are accumulated in red, two cubic yard dumpsters. There are approximately 30-40 of these dumpsters located throughout the facility (mainly in Buildings 27, 220, 29, 2, 45, and 48). When full, these dumpsters are emptied into two compactor roll-offs located at the north side of Building 27 and the north side of Building 48, respectively (approximately twice per week). The roll-off containers are transported by Peoria Disposal Company to an off-site hazardous waste facility.

Solids that have been contaminated with solvents or paint are placed in 5, 10, 15, and 30-gallon red trash cans located at the immediate work areas. There are approximately 400-500 of these containers located throughout the facility. At the end of each shift, these cans are emptied into the nearest two-yard dumpster.

MCDC is currently initiating a plan to reduce the number of small accumulation containers. Many of the small containers (5, 10, and 15 gallon) will be eliminated and replaced with 30 gallon containers that will accumulate waste from larger work areas. This plan has already been implemented in Building 101 at Tract II and has been successful.

Wastewater pretreatment sludge (F006/F019) is accumulated in a 15 cubic yard roll-off container that is located underneath the filter press in Building 14. This waste is shipped directly off-site by Heritage Transport, Inc.

Waste coolant from manufacturing equipment is collected in portable tanks and is pumped into a storage tank located in the lower level of Building 27. The waste coolant is managed as a used oil and is shipped off-site by Heritage Transport, Inc.

MCDC currently stores hazardous waste for greater than 90 days in the following unit:

Building 27 Scrap Dock Container Storage Area - Containers from off-site and from the on-site, less-than-90-day storage areas are stored at this area. Acids, alkalis, oils, solvents, and paint sludges are stored in Area 1. Cyanides and sulfides are stored in Area 2, which consists of a prefabricated storage building. A staging area for the Container Storage Area has been constructed underneath the Building 39 overhang.

MCDC has submitted modifications requesting the removal of the storage tanks from the permit. A detailed description of these tanks was included in previous inspection reports. The current status of these tanks is as follows:

Building 14 Sludge Holding Tank - MCDC submitted a request to remove this tank from permit status based on the wastewater treatment exemption. Additional sampling was conducted around the tank and a final closure report was submitted to the Department.

Building 52 Caustic Tanks (H19, H20) - The tanks are currently used to store waste sodium hydroxide solution. The solution is sent to Reynolds Aluminum in Texas for use in their process. As a result, it is not considered a solid waste. Additional sampling was conducted around the tanks and a final closure report was submitted to the Department.

Building 52 Acid Tanks (H12-H16) - These tanks are currently used to store waste nitric hydrofluoric acid (pickling solution). This solution is sent to a facility in Washington, Missouri, that uses it as an ingredient in their process. As a result, it is not considered a solid waste. MCDC is pursuing closure of these tanks. Sampling conducted by MCDC around the tanks showed contamination. Additional sampling will be conducted to determine the extent of the contamination.

Hush House Waste Tank - Groundwater remediation is ongoing. Closure will not be certified until the cleanup levels specified by the Department are achieved. Waste jet fuel generated in this area is currently being run through an oil water separator.

Fuel Pit #3 and #4 Waste Tanks - Same as the Hush House Waste Tank.

Ramp Station 1 and 2 Waste Tank - Tank has been removed. Groundwater remediation is ongoing. Waste jet fuel generated in this area is currently being run through an oil water separator.

The following units have been certified closed and are no longer part of the permit:

Building 52 Acid Tanks (H1-H6)
Building 6 Waste Oil Tank
F-18 Silencer Waste Tank
Building 27 Scrap Dock Container Storage Area 2 (original area 2)
Building 28 Waste Tank
Building 10 Explosives Storage Building

Waste jet fuel generated at this facility is burned as a fuel in the facility's boilers. As a result, the jet fuel is not considered a solid waste.

MCDC has a Resource Recovery Certification (expires November 18, 1996) for the following operations:

Distillation of spent Methyl Ethyl Ketone (MEK) and Methyl Isobutyl Ketone (MIBK) at the Building 27 and Building 48 paint areas. The distillation unit located at the paint area in Building 27 has been removed due to its age and deteriorating performance. The distillation unit located at the Building 48 paint area was moved to the large paint shop in Building 2. The unit is currently not being used.

The recovery of perchloroethylene by steam stripping carbon adsorption beds. This process is located in Building 51. Prior to chemical milling, a maskant coating that contains perchloroethylene is applied to metal parts. As the parts dry, the perchloroethylene evaporates, is collected, and is run through a carbon adsorption unit. The perchloroethylene is stripped from the carbon beds with steam and is collected for reuse as an ingredient in new maskant production.

The recovery of used hydraulic oil. Used hydraulic oil generated from metal fabrication equipment in building 29 is processed through a thermo-vacuum-distillation unit. Water and solids are removed from the oil and the oil is reused at the facility. This activity no longer requires resource recovery certification.

Solid waste generated at the facility is hauled by MCDC to the Westlake Sanitary Landfill. Burnable solid waste is collected in brown, 2 cubic yard dumpsters and is burned in a permitted incinerator located at the MCDC Tract II facility.

MCDC has a NPDES Permit (MO-0004782) from the MDNR for the discharge of storm water and non-contact cooling water.

MCDC has a corporate goal to reduce the quantity of hazardous waste generated at this facility by 90 percent over the period 1987 to 2000. The facility recently began segregating empty paint cans from the paint solids waste stream and ship them off-site for recycling. MCDC is also considering additional on-site neutralization of corrosive waste streams.

UNSATISFACTORY FEATURES

1. Satellite containers of hazardous waste not marked and dated, in violation of 10 CSR 25-5.262(2)(C)3. The following satellite accumulation containers were not marked or dated: a 55-gallon drum of waste solvent in the Building 27 paint area; a 55-gallon drum of waste solvent in the Building 2 large paint area; two 30-gallon drums of paint solids in the Building 48 paint area.

   All satellite accumulation containers of hazardous waste must be marked with the words "HAZARDOUS WASTE," or with other words that identify the contents of the containers, as well as with the beginning date of satellite storage. Mr. Haake informed the employees working at the paint areas of the marking/dating requirements and the proper labels were attached to the containers during the inspection.

2. The storage of hazardous waste in the permitted area for over one year, in violation of 10 CSR 25-5.265(1) incorporating 40 CFR 268.50(c). A review of the computer tracking log for the permitted container storage area indicated that approximately 60 containers have been stored in Area 1 for over one year.

   The Land Disposal Restrictions only allow the storage of hazardous waste at a permitted facility for up to one year. However, hazardous waste may be stored for over one year if such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal. MCDC must dispose of all hazardous waste that has been stored for over one year at the facility or must submit information to the Department that shows this length of storage was necessary in order to facilitate proper recovery, treatment, or disposal.

3. Failure to obtain approval for a change in the resource recovery operation, in violation of 10 CSR 25-9.020(3)(E)1. The distillation unit located at the Building 48 paint area was moved to the Building 2 large paint area in December 1995. The unit was inactive at the time of the inspection, but will be utilized at this area in the future.

MCDC must submit a written notification to the Hazardous Waste Program describing the modification to the resource recovery process. Please address the notification to Mr. Dave Maschler of the Hazardous Waste Program. A copy of the notification should also be sent to this office.

COMMENTS

An area to stage and process drums prior to placement in the permitted storage area has been designated under the Building 39 overhang. The area is enclosed by an asphalt berm. MCDC must calculate the capacity of the containment system in order to determine the maximum quantity of containers that may be stored in this area. The capacity of the containment system must be at least 10 percent of the waste volume or the volume of the largest container, whichever is larger. This information must be submitted to this office.

PREPARED BY:

Joseph L. Trunko
Environmental Specialist

APPROVED BY:

Mike Struckhoff
Unit Chief, Hazardous Waste

JLT/jh

MISSOURI DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE PROGRAM
LARGE QUANTITY GENERATOR

INSPECTION RECORD AND CHECKLIST

L

LOG-INSP

FOR FACILITIES THAT GENERATE/ACCUMULATE > 1000 Kg (2,200 lbs. or approximately, 5 drums)

NAME	DATE	EPA I.D. NUMBER
McDonnell Douglas Corporation - Tract I	4-17-96	MOD000818963
ADDRESS	**RR NO**	**MO I.D. NUMBER**
P.O. Box 516	0268-A	001001
CITY	**NUMBER OF EMPLOYEES**	**YEARS AT SITE** / **TELEPHONE NUMBER**
St. Louis	≈ 6,500	(314) 232-3319

FACILITY REPRESENTATIVE(S), TITLE(S)
Joe Hacke - Group Manager, Environmental and Hazardous Materials Services

DESCRIPTION OF THE FACILITY'S OPERATIONS AND PLANT.

Included in Written Report

WASTE STREAMS

DESCRIBE EACH WASTE STREAM GENERATED INCLUDING THE PRODUCTION PROCESS	GENERATION RATE	EPA ID NUMBER	DISPOSITION
1.			
2. Included in Written Report			
3.			
4.			
5			

CHECK ALL THAT APPLY (Specify if possible)

- ☑ NPDES Permit
- ☐ Septic Tank
- ☑ Air Permit
- ☐ Lead/Acid Batteries
- ☐ H.W. Burner/Blender/Marketer
- ☐ Precious Metal Reclamation
- ☐ POTW _____
- ☐ Solid Waste Landfill _____
- ☑ Waste Water Pretreatment

A. GENERAL

		COMMENTS
1. ☑ Registered as a HW Generator - Section 260.380.1 (1) RSMo and 10 CSR 25-5.262 (2)(A)	GGR	
2. ☑ Facility determines if waste is hazardous - 10 CSR 25-5.262(1) incorporating 40 CFR 262.11	GGR	
3. ☑ Utilizes a licensed hazardous waste transporter - Section 260.380.1 (5) RSMo	GGR	
4. ☑ Utilizes authorized HW TSD or RR facility - Section 260.380.1(7) RSMo	GGR	
5. ☑ Facility does not operate as a TSD - Section 260.390(1) RSMo	GGR	

PART 1: WALK-THROUGH INSPECTION

B. PRETRANSPORT, CONTAINERIZATION & STORAGE

		COMMENTS
1. ☑ Storage does not exceed 90 days or 180/270 days if facility generates ≤ 1000 Kg/month - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)	GPT	
2. ☑ Containers in good condition - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.171	GPT	
3. ☑ Waste compatible with container - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.172	GPT	
4. ☑ Containers closed in storage - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.173(a)	GPT	
5. ☑ Containers storing incompatible waste separated or protected from each other by a dike, berm or wall - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.177(c)	GPT	
6. ☑ Container storage areas have a containment system if holding more than 1000 Kg of liquid hazardous waste - 10 CSR 25-5.262 (2)(C)2.B.(I)	GOR	
7. ☑ Base of containment system is impervious and free of cracks or gaps - 10 CSR 25-5.262 (2)(C)2.B.(III)(a).	GOR	
8. ☑ Containers protected from contact with accumulated liquids - 10 CSR 25-5.262(2)(C)2.B.(III)(b).	GOR	
☑ Capacity of containment system = 10% of waste volume or volume of largest container, whichever is greater - 10 CSR 25-5.262(2)(C)2.B.(III)(c).	GOR	
10. ☑ Run-on onto the containment system is prevented or excess capacity is provided - 10 CSR 25-5.262(2)(C)2.B.(III)(d).	GOR	
11. ☑ Accumulated liquids removed to prevent overflow of containment - 10 CSR 25-5.262(2)(C)2.B.(III)(e).	GOR	
12. ☑ Containers of ignitable or reactive waste stored >50 ft. from property line (or meet requirements) - 10 CSR 25-5.262(2)(C)5. referencing 40 CFR 265.176 as amended by 10 CSR 25-7.265(2)(I)7.and 8.	GPT	
13. ☑ Containers clearly marked "hazardous waste" - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(3)	GPT	
14. ☑ Waste packaged/labeled/marked per DOT during entire on-site storage period - 10 CSR 25-5.262(2)(C)1.	GOR	
15. ☑ Date of accumulation marked on containers - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(2)	GPT	
16. ☑ Facility inspected and maintained (weekly) - 10 CSR 25-5.262(2)(C)2.A.(I) and (II) referencing 40 CFR 265.174	GPT	
17. ☑ Daily inspection of areas subject to spills, i.e., waste handling areas - 10 CSR 25-5.262(2)(C)2.A.(II)	GOR	
18. ☑ Adequate aisle space is available - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.35	GPT	
19. ☑ Placards available for transporter - 10 CSR 25-5.262(1) incorporating 40 CFR 262.33	GPT	
20. ☑ "No Smoking" signs conspicuously placed by ignitable or reactive wastes - 10 CSR 25-5.262(2)(C)2.D(II)	GOR	
21. ☑ Waste oil containers in good condition, labeled and closed - 10 CSR 25-11.010(3)(C)	GOR	

C. SATELLITE ACCUMULATION

		COMMENTS
1. ☑ Containers kept closed - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(1)(i) referencing 40 CFR 265.173(a)	GPT	

		COMMENTS
2. ☑ Containers in good condition - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(1)(i) referencing 40 CFR 265.171	GPT	
3. ☑ Waste compatible with container - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(1)(i) referencing 40 CFR 265.172	GPT	
4. ☑ Quantities accumulated not exceeding 55 gal. (1 quart of acutely-hazardous wastes) - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(1)	GPT	
5. ☑ Satellite containers go to storage within 3 days of filling - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(c)(2).	GPT	
6. ☐ Container marked identifying contents & beginning date - 10 CSR 25-5.262(2)(C)3.	GOR	
7. ☑ Stored in satellite areas less than 1 year - 10 CSR 25-5.262(2)(C)3.	GOR	

D. PREPAREDNESS AND PREVENTION AND EMERGENCY PROCEDURES

		COMMENTS
1. ☑ Facility operated and maintained to minimize the possibility of an emergency - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.31	GPT	
2. ☑ Adequate and proper spill control, decontamination and safety equipment available (fire blankets, respirators, SCBA, absorbents, etc.) - 10 CSR 25-5.262 (2)(C)2.E.	GPT	
3. ☑ Adequate water supply and fire control equipment - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.32(c) & (d)	GPT	m CDC has onsite fire/emergency response Department to respond to emergencies.
4. ☑ Device in the hazardous waste operation area capable of summoning emergency assistance - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.34(a)	GPT	
5. ☑ Telephone or two-way radio on-site and capable of summoning local fire or police department - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.32(b)	GPT	
6. ☑ Communication and emergency equipment tested and maintained - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.33	GPT	

LQG TANKS

TANK DESIGNATION	CONTENTS	CAPACITY	CONTAINMENT	AGE
1.	No Hazardous waste storage in tanks			
2.	Building 52 Tanks (H12-H16) are used to store waste nitric hydrofluoric acid prior to			
3.	shipment offsite for reuse.			
4.	Building 52 Caustic Tanks (H19, H20) are used to store waste sodium hydroxide solution prior to shipment offsite for reuse.			
5.	Building 14 sludge tank is part of wastewater pretreatment system.			

		COMMENTS
1. ☑ Spill prevention controls in place and operating e.g. check valves, dry discount couplings - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.194(b)(1)	GPT	
2. ☑ Overfill prevention controls in place and operating, e.g. high level alarms, automatic feed cutoff, etc. - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.194(b)(2)	GPT	
3. ☑ Sufficient freeboard in uncovered tanks to prevent overtopping - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.194(b)(3)	GPT	
4. ☑ Waste or treatment method compatible with tank - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.194(a)	GPT	
5. ☑ Incompatible wastes not placed in same tank - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.199(a)	GPT	
☑ Ignitable or reactive wastes rendered safe/protected from sources of ignition or reaction - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.198(a)(1) and (2)	GPT	
7. ☑ Ignitable or reactive wastes treated/stored in accordance with NFPA's buffer zone requirements - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.198(b)	GPT	

8. ☑ Volatiles with vapor pressure > 78 mm @ 25° C not placed in open tanks - 10 CSR 25-5.262(2)(C)2.D.(I)	GOR	COMMENTS
9. ☑ Wastes and residues removed as hazardous waste and tank and equipment decontaminated upon closure - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.197(a)	GPT	
10. ☑ Secondary containment system provided for tanks and equipment; installed after July 14, 1986; storing dioxin waste; over 15 years old; of unknown age in facility over 15 years old; repaired, replaced or reinstalled after July 14, 1986 - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(a)	GPT	
11. ☑ Secondary containment system constructed of or lined with impervious waste compatible material - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(c)(1)	GPT	
12. ☑ Containment system supported by base capable of preventing failure due to settlement, compression or uplift - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(c)(2)	GPT	
13. ☑ Containment system provided with a leak detection system capable of detecting a release within 24 hours - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(c)(3)	GPT	
14. ☑ Containment system sloped or designed to drain and remove liquids - 10 CSR 25-5.262(2)(C)2.C. referencing 10 CSR 25-5.262(2)(C)2.B. (III)(b)	GOR	
15. ☑ Containment system capable of containing 100% of the capacity of the largest tank - 10 CSR 25-5.262(2)(C)2.C. referencing 10 CSR 25-5.262(2)(C)2.B.(III)(c)	GOR	
16. ☑ Containment system free of cracks or gaps - 10 CSR 25-5.262(2)(C)2.C. referencing 10 CSR 25-5.262(2)(C)2.B. (III)(a)	GOR	
17. ☑ Run-on onto containment system prevented or excess capacity is provided - 10 CSR 25-5.262(2)(C)2.C. referencing 10 CSR 25-5.262(2)(C)2.B.(III)(d)	GOR	
18. ☑ Spilled or leaked waste and precipitation removed from secondary containment within 24 hours or as soon as possible - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(c)(4)	GPT	
19. ☑ Tanks are clearly labeled or marked "Hazardous Waste" - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(3)	GPT	
20. ☑ Daily inspections of overfill/spill control equipment, aboveground portions of tank system, secondary containment, and data gathered from monitoring equipment - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.195(a)	GPT	
21. ☑ Inspection log maintained - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.195(c)	GPT	
22. ☑ Cathodic protection systems inspected annually, impressed current sources every two months - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.195(b)	GPT	
23. ☑ Detailed written assessment by an independent, qualified, professional engineer for tanks installed after July 14, 1986, prepared and on-site- 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.192	GPT	
24. ☑ Written assessment by an independent, qualified, professional engineer prepared and on-site for tanks lacking secondary containment - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.191	GPT	
25. ☑ Leak test, internal inspection or tank integrity exam performed annually and documented, by an independent, qualified, professional engineer for tanks lacking secondary containment - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.193(i)	GPT	
26. ☐ Leak/spill response resulted in: waste flow stopped immediately; waste removal; containment and removal of visible releases to the environment; notification and report; and repair or closure - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(1) referencing 40 CFR 265.196	GPT	

PART 2: RECORDS INSPECTION

F. MANIFESTS

		COMMENTS
1. ☑ Facility uses manifest system - 260.380.1.(6) RSMo, and 10 CSR 25-5.262(2)(B)	GMR	
2. ☑ Records maintained for a 3-year period - 10 CSR 25-5.262(1) incorporating 40 CFR 262.40(a)	GRR	
3. ☑ Generator's MO & EPA I.D. Numbers - 10 CSR 25-5.262(2)(B)	GOR	
4. ☑ Manifest document, ID and consecutive shipment numbers - 10 CSR 25-5.262(2)(B)2.A.	GOR	
5. ☑ Generator's name, address and phone number - 10 CSR 25-5.262(2)(B)2.	GMR	
6. ☑ All transporters' names, phone numbers, MO & EPA I.D.#'s, license plate # - 10 CSR 25-5.262(2)(B)2.	GMR	
7. ☑ Designated facility name, address, phone, MO & EPA I.D. #, - 10 CSR 25-5.262(2)(B)2.	GMR	
8. ☑ DOT shipping name, Hazard Class and waste I.D. # (RQ - if required) - 10 CSR 25-5.262(2)(B)2.	GMR	
9. ☑ Containers, quantity and specific gravity designated - 10 CSR 25-5.262(2)(B)2.	GMR	
10. ☑ Manifest signed and dated - 10 CSR 25-5.262(2)(B)2.	GMR	
11. ☑ Out of state manifests have all required MO information - 10 CSR 25-5.262(2)(B)4.A.	GOR	
12. ☑ Manifest continuation sheets are not used - 10 CSR 25-5.262(2)(B)1.	GOR	
13. ☑ Manifest returned within 35 days - or exception report submitted within 45 days - 10 CSR 25-5.262(2)(D)2.C.	GRR	
14. ☑ Summary Manifest Reports and manifest copies sent to DNR quarterly - 10 CSR 25-5.262(2)(D)1.	GOR	

G. LAND DISPOSAL RESTRICTIONS

		COMMENTS
1. ☑ Tests waste or uses knowledge of waste to determine if the waste is restricted from land disposal - 10 CSR 25-7.268(1) incorporating 40 CFR 268.7(a)	GLB	
2. ☑ Dilution of waste to meet LDR treatment standards is not occurring - 10 CSR 25-7.268(1) incorporating 40 CFR 268.3(a)	GLB	
3. ☑ "Land-Ban" notification/certification, sent with manifests and retained on-site for five years - 10 CSR 25-7.268(1) incorporating 40 CFR 268.7(a)	GLB	
4. ☑ Notification/certification includes correct EPA Hazardous Waste number, corresponding treatment standards, manifest number, and waste analysis data - 10 CSR 25-7.268(1) incorporating 40 CFR 268.7(a)	GLB	
5. ☑ Waste analysis plan on-site and utilized if generator treats hazardous waste in tanks or containers to meet LDR treatment standards - 10 CSR 25-7.268(1) incorporating 40 CFR 268.7(a)(4)	GLB	

H. PERSONNEL TRAINING

		COMMENTS
1. ☑ Personnel are trained to respond to emergencies including the use of alarm systems, emergency equipment and contingency plan - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(a)(3).	GPT	
2. ☑ Employees do not work in unsupervised positions until they have completed the training - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(b)	GPT	
3. ☑ Training reviewed annually - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(c)	GPT	
4. ☑ Program director trained in hazardous waste management procedures - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(a)(2)	GPT	
5. ☑ Personnel training plan on-site - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(d)	GPT	

6. ☑ Gives job title, job description and name of employee filling each position - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(d)(1) and (2)	GPT	COMMENTS
7. ☑ Written description of introductory and continuing training that will be given to each position - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(d)(3)	GPT	
8. ☑ Documentation of training completed by personnel - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(d)(4)	GPT	
9. ☑ Records of current personnel maintained until facility closure, former employee records maintained for at least three years - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.16(e)	GPT	
I. CONTINGENCY PLAN		
1. ☑ Contingency plan maintained on-site - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.53(a).	GPT	COMMENTS
2. ☑ Plan submitted to local emergency response agencies - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.53(b)	GPT	
3. ☑ Emergency coordinator on-site or on call - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.55	GPT	
4. ☑ Plan describes actions personnel must take in response to fires, explosions or other releases of hazardous waste - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(a)	GPT	
5. ☑ Describes arrangements with emergency response agencies - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(c)	GPT	
6. ☑ Lists names, addresses and phone numbers (home and office) of emergency coordinators - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(d)	GPT	
☑ Primary emergency coordinator designated - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(d)	GPT	
8. ☑ List emergency equipment including description, location and capabilities - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(e)	GPT	
9. ☑ Evacuation plan, if applicable, designates primary and secondary routes and evacuation signal - 10 CSR 25-5.262(1) incorporating 40 CFR 262.34(a)(4) referencing 40 CFR 265.52(f)	GPT	
J. WASTE OIL		
1. ☑ Waste oil is managed properly and not disposed of into the environment - 10 CSR 25-11.010(1)(D).	GOR	COMMENTS
2. ☑ Listed hazardous waste mixed with waste oil is handled as a hazardous waste - 10 CSR 25-11.010(1)(C)2.	GOR	
3. ☑ Registered as waste oil generator if gen./accum. 220 lb. - 10 CSR 25-11.010(2)(A) N/A	GOR	
4. ☑ Written waste oil contract maintained - 10 CSR 25-11.010(4)(C)	GOR	
5. ☑ Uses a licensed transorter and receiving facility - 10 CSR 25-11.010(4)	GOR	
K. RESOURCE RECOVERY		
1. ☑ RR certification for energy recovery or reclamation of waste oil or hazardous waste on-site - 10 CSR 25-9.020(1)(A)3.	GOR	COMMENTS
2. ☑ Still bottoms or RR residues disposed of properly - Section 260.380.1(5) RSMo.	GOR	
3. ☑ Facility is classified as U, R1 or R2 accurately - 10 CSR 25-9.020(3)(A).	GOR	
☑ Facility meets the operating conditions of certification - 10 CSR 25-9.020(30)(E)3.	GOR	
5. ☐ Facility has submitted a written request and received approval from the DNR for all changes in operation including closure - 10 CSR 25-9.020(3)(E) 1. and 2.	GOR	Distillation unit located at Bldg. 48 has been relocated to Bldg 2 large paint area.

6. ☑ **Facility report submitted to DNR quarterly** - 10 CSR 25-9.020(3)(E)6. referencing 10 CSR 25-7.264(2)(E)3.	GOR	**COMMENTS**
7. ☑ **Facility maintains a written operating record** - 10 CSR 25-9.020(3)(E)5. referencing 40 CFR 264.73(b)(1) & (2) as modified by 10 CSR 25-7.264(2)(E)2.	GOR	
8. ☑ **Facility has notified EPA and the state that it qualifies for a small quantity on-site burner exemption or has interim status or a permit if it burns hazardous waste on-site** - 10 CSR 25-7.266(1) incorporating 40 CFR 266.108 and 40 CFR 266.103.	GOR	
9. ☑ **R2 facility uses an adequate sampling and analysis plan to assess incoming shipments** - 10 CSR 25-9.020(3)(C)1.	GOR	
10. ☑ **R2 facility maintains a daily log of manifest number, wastes received, disposition of waste and corresponding sampling data** - 10 CSR 25-9.020(3)(C)2.	GOR	
11. ☑ **R2 facility has a written closure plan which meets 40 CFR 264.112 requirements** - 10 CSR 25-9.020(3)(C)3.	GOR	
12. ☑ **R2 facility provides financial assurance for closure** - 10 CSR 25-9.020(3)(C)4.	GOR	

CHECKLIST KEY

Check the ☑ if in compliance.

Circle the ⓞ if not in compliance and provide comment.

N/A = Not Applicable

A shaded item is a serious deviation from the requirements (Class I violation)

An unshaded item is a significant deviation from the requirements (Class II violation unless conditions warrant Class I)

COMMENTS: INCLUDE DISCUSSION OF FACILITY'S WASTE MINIMIZATION PLAN

INSPECTOR'S SIGNATURE	DATE
Joseph L. Trumbo	4-17-96

HAZARDOUS WASTE TREATMENT/STORAGE/DISPOSAL FACILITY

PERMITTED FACILITY CHECKLIST

Name of Facility: McDonnell Douglas Corporation - Tract I Date 4-17-96

Address: P.O Box 516 Missouri I.D. # 001001

McDonnell Blvd. St. Louis, MO 63166 EPA I.D. # MOD 000818963

Facility Representative: Joe Hoake Transporter? yes, # H-1039

Title: Group Manager – Environmental and Hazardous Materials Services Phone Number (314) 232-3319

Provide a brief description of the treatment, storage or disposal process, if the process has changed from the description in the permit application.

Included in Written Report

List the hazardous wastes, if any, that are not listed in the application or permit but that are found being treated, stored, disposed or recycled:

	Waste	Amount/Month	Kilogram/Month	I.D.#	Disposition
1.					
2.	Included in Written Report				
3.					
4.					
	Total				

Are the manifest(s) and quarterly summary reports being completed and filed with the Department of Natural Resources at P.O.Box 176, Jefferson City, MO. 65102 as required.

yes ✓ no ____

The following numbering system incorporates the state and federal citations. The state citations to the regulations appears at the top of each section. The last part of the state citation refers to the part of 10 CFR, the federal regulation. In the column, the federal regulation appears as a period and number, .XX. The more stringent state regulations appear in parenthesis, ( ).

10 CSR 25-5.262 Standards for Generators (General/Standard/Special) Condition ___

.11	Generator's MO and EPA I.D. Numbers	✓
(2B)	No more than 10 days time between generator and facility signatures	✓
(2B2)	Serially Increasing shipment number	✓
	Generator's name, address, phone #	✓
	All transporters' names, phone #'s, MO and EPA I.D. #'s	✓
	Designated facility name, address, phone # and EPA I.D. #	✓
	Proper DOT Shipping Name, Hazard Class and I.D. #	✓
	Containers, Quantity and Unit Wt/Vol being shipped properly designated	✓
(2B6)	Proper certification	✓
(2B6)	Manifests returned within 35 days	✓
(2B6)	Completed manifests submitted to DNR quarterly	✓
.23	Manifest properly signed by generator/transporter/TSD and dated	✓
(2D1)	Summary Manifests Report submitted to DNR quarterly	✓
(2D2)	Exception generator report submitted within 45 days	✓
.41	Biennial Report	✓
.30	Waste stored in proper DOT containers	✓
.32	Containers/Tanks labeled "Hazardous Waste" and labeled per proper DOT requirements during storage	✓
.33	Placards available for use by transporters	✓
(2C)	Facility inspected and maintained	✓
	Ignitable and reactive wastes properly handled	✓
	Date of accumulation marked	✓
	Storage less than 90 days (if applicable)	✓
(2C2)	Satellite Accumulation requirements met (if applicable)	✓
	Stored in satellite areas less than 1 year	✓
	Container marked identifying contents and beginning date	—
	Containers kept closed / compatible / good condition	✓
	Quantities accumulated not exceeding 55 gal. (1 quart acutely hz waste)	✓

10 CSR 25-7.264(2)(B) General Facility Standard (General/Standard/Special) Condition ___

.12(a) Notice of Hazardous Waste shipment from foreign source.....(N/A

(b) Notice of permit when receiving waste.....(N/A

.13 General Waste Analysis

(a)(1) Copy of plan on site.....(✓)

(a)(3)(i) Plan updated if process(es) change.....(✓)

(ii) Analysis repeated if manifest discrepancy.....(✓)

(b) Procedures to identify wastes on site including leachate and runoff.....(✓)

(c) Procedures to identify wastes from off site.....(✓)

Waste Analysis plan up-to-date.....(✓)

Identify hazardous wastes handled at the facility including leachate and runoff.....(✓)

Means to confirm off-site wastes (manifest discrepancy) and run off.....(✓)

.14(b) Security

24-hour surveillance system at facility or.....(guards).....(✓)

An artificial or natural boundary / controlled access.....(✓)

Restricted access sign posted at each entrance.....(✓)

Legible from a distance of 50 feet.....(✓)

.15 General Inspection

(a) Facility inspected and maintained.....(✓)

(b)(1) Inspect emergency equipment, security devices, operating and structural equipment.....(✓)

(c) Remedied any deteriorated or malfunctioning equipment (check equipment)....(✓)

(d) Records of inspections retained.....(✓)

.16 Personnel training

(a) Completed classroom or on-the-job training to handle emergencies.....(✓)

(a)(2) Trainer qualified in hazardous waste management procedures documented...(✓)

(c) Annual review of training.....(✓)

(d) Job title, description, and name of person filling position.....(✓)

(e) Written record of the type and amount of training given.....(✓)

.17 General Requirements for Ignitable, Reactive or Incompatible Wastes

(a) Precautions taken to prevent accidental ignition.....(✓)

(b) Precautions taken to prevent reaction.....(✓)

(c) Documented methods used.....(✓)

.18 Location Standard

(b) Floodplains - plan in place for how facility will remove wastes from areas that could be flooded.....(✓)

10 CSR 25-7.264(2)(C) Preparedness and Prevention (General/Standard/Special) Condition___

.32(a) Internal communication or alarm system.....(✓)

(b) Device in the hazardous waste operation area capable of summoning emergency assistance.....(✓)

(c) Fire control, spill control, and decontamination equipment available.....(✓)

(d) Adequate water supply for fire control equipment.....(✓)

.33(a) Adequate and proper safety equipment, available and ready.....(✓)

.34 Each person in hazardous waste area able to summon help.....(✓)

.35 Adequate aisle space.....(✓)

.37 Arrangements with local emergency agencies.....(✓)

(Facility has onsite fire/emergency response dept.)

10 CSR 25-7.264(2)(D) Contingen Plan (General/Standar pecial) Condition ___

.51 Has contingency plan been used successfully.....(✓)

.52 Are following items up-to-date

(a) Detailed description of procedures that personnel must implement in response to fires, explosions, releases of hazardous waste.....(✓)

(c) Formal arrangements with emergency services.....(✓)

(d) Name, address, and phone numbers (home & office) of emergency coordinator(s)(✓)

(e) Emergency equipment including its description and location.....(✓)

(f) Evacuation plan.....(✓)

.53 Copy of the contingency plan at site.....(✓)

.54 Contingency plan need amendments made as necessary.....(✓)

.55 Emergency coordinator can commit resources in an emergency.....(✓)

.56 Emergency coordinator can explain his responsibilities in emergency situations (Use the exit interview to ask specific questions about possible emergencies at site.).....(✓)

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10 CSR 25-7.264(2)E) Manifest System (General/Standard/Special) Condition.....___

.71 Use of Manifest System (waste received from MCDC facilities only) MCDC is only transporter

For off-site facilities

(a)(1) Manifests signed by generator/transporter/TSD and dated.....(✓)

(a)(2) Discrepancy in manifested loads noted.....(✓)

(a)(3) Copy to transporter.....(✓)

(a)(4) Copy to generator in 30 days.....(✓)

(a)(5) Copy at facility for 3 years.....(✓)

(c) Use Generator Checklist for waste sent off-site 10 CSR 25-5.262.....(✓)

Operating Record

.72(a) Manifest properly signed and dated.....(✓)

(b) Completed manifests submitted to DNR quarterly.....(✓)

(c) Summary Manifest Report submitted to DNR quarterly.....(✓)

(d) Biennial Report.....(✓)

.73(a) Description, quantity, and TSD process for all hazardous wastes.....(✓)

(b)(1) Location and quantity of all hazardous waste.....(✓)

(b)(3) Waste analysis records from off-site sources.....(✓)

(b)(4) Summary and description of emergency incidents.....(✓)

(b)(5) Record of inspections.....(✓)

(b)(6) Monitoring and testing and analytical results on-site if necessary.....(✓)

Reporting

.74 Records are kept and available for inspection.....(✓)

.75 Quarterly facility reports submitted.....(✓)

(2G) Ground water monitoring data on-site/submitted.....(n/a)

(2H) Certification of information signed.....(✓)

.76 Unmanifested waste reports for off-site facilities on-site/submitted.....(✓)

.77 Reports for emergencies, spills, closure on-site/submitted.....(✓)

10 CSR 25-7.264(2)(F) Ground Water Monitoring (General/Standard/Special) Condition N/A

.90 Monitoring Well Construction

Please describe the casing material and well diameters and locations if different than described in the permit application:_____

Describe the condition and type of protective casing in the monitoring wells if different than described in the permit application:_____

Describe the security measures completed to protect the wells from outside influences if different than described in the permit application:_____

The wells appear structurally sound and there is no failure in the integrity. yes____ no _____ unknown ____

The wells appear tightly sealed at the surface and no pathways exist for surface water to leak into the wells. yes____ no _____ unknown ____

.91(a) Have records been kept of analyses of ground and surface water sampling? yes____ no _____ unknown ____

(F1) Have these records been submitted to EPA/DNR? yes____ no _____ unknown ____

(F5) Can personnel identify surface water sampling points or direction of drainage( )

10 CSR 25-7.264(2)(G) Closure and Post-Closure (General/Standard/Special) Condition ____

.112 There is a copy of the approved closure and post-closure plans onsite.....(✓)
Plan is up-to-date.....(✓)

Bldg 14 sludge Tank, Tanks H12-H16, H19, H20, Wash House waste Tank, Fuel Pit #3 & #4 tank and Ramp Stations 1 and 2 tank are all undergoing closure.

10 CSR 25-7.264(2)(H) Financial Requirements (General/Standard/Special) Condition ____

.140 O/O can produce documents showing compliance with financial requirements for closure, post-closure, and sudden and non sudden liability.....(✓)
.143(a) Closure cost estimates are up-to-date.....(✓)
(b) Letter of transmittal to MDNR on-site.....(✓)
.145(a) Post-closure cost estimates are up to date.....(✓)
(b) Letter of transmittal to MDNR on-site.....(✓)
.147 Liability requirements are up-to-date.....(✓)

10 CSR 25-7.264(2)(I) Use and Management of Containers (General/Std/Special) Condition__

.171 Containers in good condition.....(✓)
.172 Containers made of materials compatible with hazardous wastes placed in them.(✓)
.174 Hazardous waste containers storage area inspected once a week and inspection log completed.....(✓)
.175 Containment free of cracks; containers elevated; run-on prevented; sump empty; no sign of stains of spilled material.....(✓)

.176 Ignitable or reactive waste at least 50 ft. from property line.....(✓)
.177(a) Incompatible wastes placed in different containers.....(✓)
(c) Containers holding incompatible wastes separated by dikes, or walls.....(✓)

(No haz waste storage in tanks)

(J)(1,) No hazardous waste having a vapor pressure of 78 mm of Hg at 25°C in an open tank .....(✓)

.194(a) No hazardous waste shall be placed in tank if it causes a failure.....(✓)

.194(b) o/o uses appropriate practices to prevent spills (one of the following)

(1) spill prevention devices.....(✓)

(2) overfill prevention devices.....(✓)

(3) maintain sufficient freeboard.....(✓)

.194 (c) if spill facility complied with 264.196.....(✓)

.195 (a) overfill controls inspected.....(✓)

.195 (b) the following components are inspected daily

(1) above ground portions of tanks.....(✓)

(2) data from leak detection equipment.....(✓)

(3) area around tank to check for leaks.....(✓)

.195(c) cathodic protection and integrity of tank(s) inspected

(1) within 6 months of installation and annually thereafter.....(✓)

(2) all sources of impressed current must be inspected every other month....(✓)

.195(d) inspections documented in operating record.....(✓)

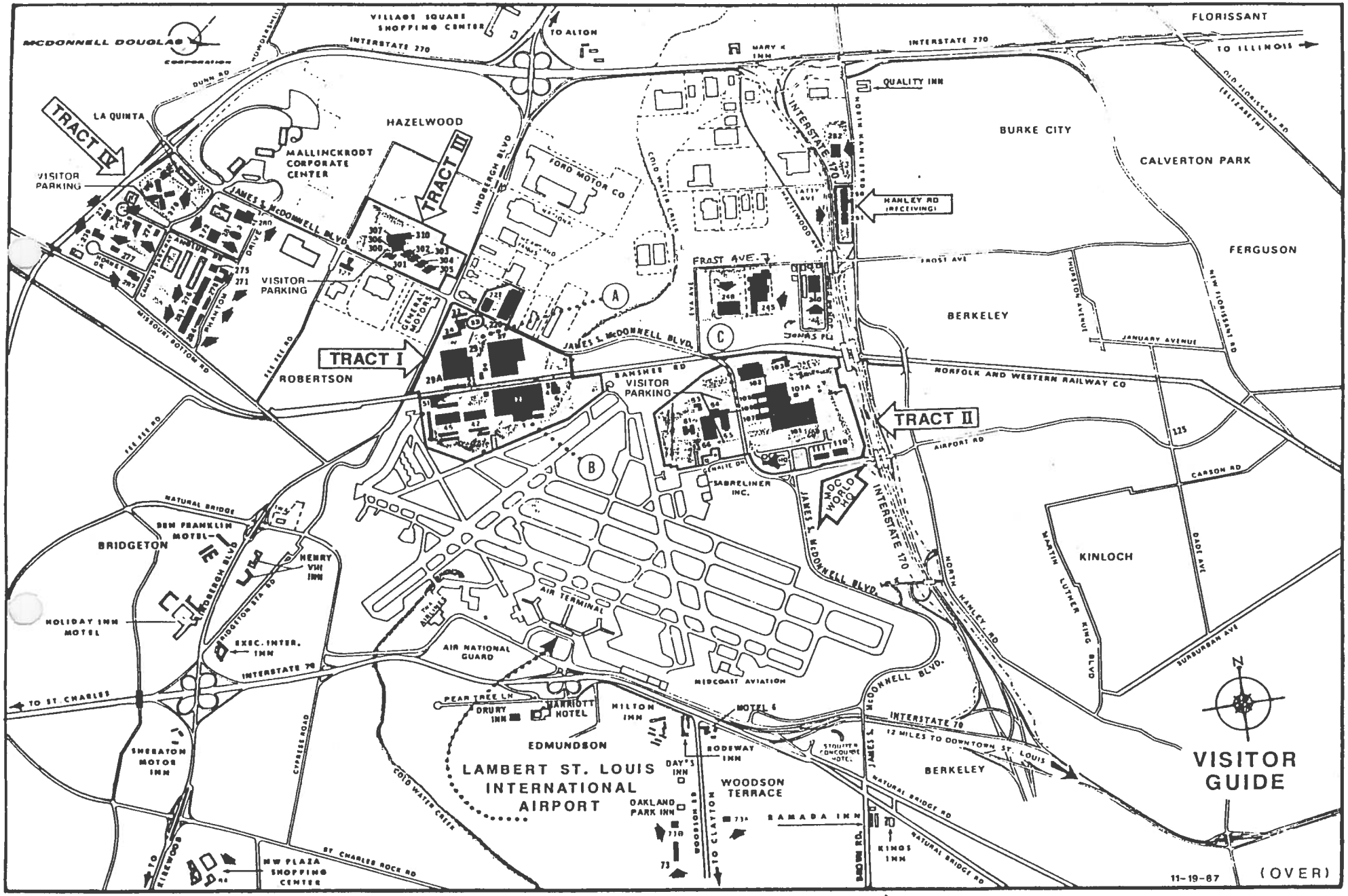
(✓) In compliance (—) In violation

Inspector's name Joe Trunko

Title Environmental Specialist II

Date 4-19-96

FORM PERMIT-INSPEC (MARCH 1988)



McDonnell Douglas Aerospace (Tract I)
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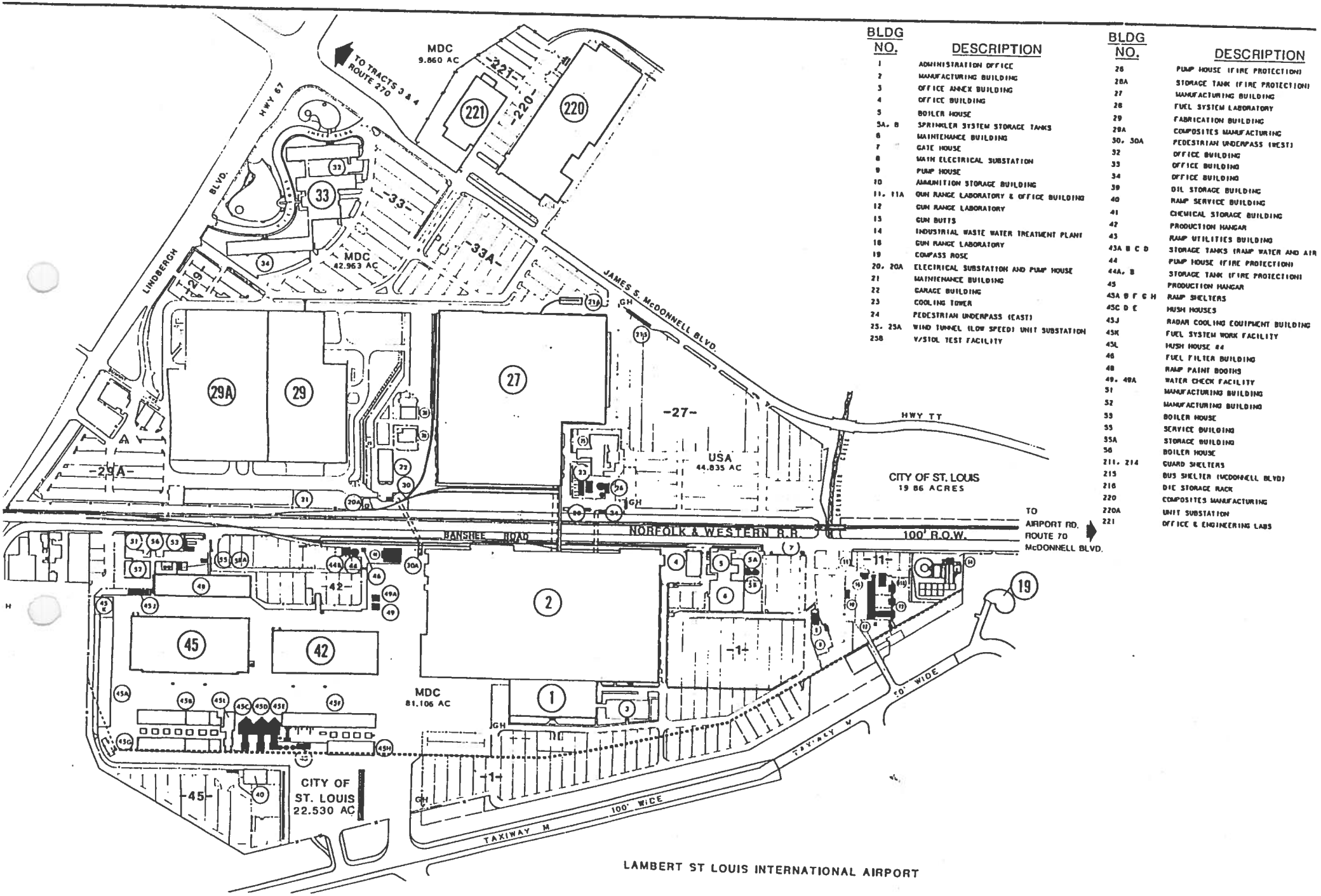

BLDG NO.	DESCRIPTION
1	ADMINISTRATION OFFICE
2	MANUFACTURING BUILDING
3	OFFICE ANNEX BUILDING
4	OFFICE BUILDING
5	BOILER HOUSE
5A, B	SPRINKLER SYSTEM STORAGE TANKS
6	MAINTENANCE BUILDING
7	GATE HOUSE
8	MAIN ELECTRICAL SUBSTATION
9	PUMP HOUSE
10	AMMUNITION STORAGE BUILDING
11, 11A	GUN RANGE LABORATORY & OFFICE BUILDING
12	GUN RANGE LABORATORY
13	GUN BUTTS
14	INDUSTRIAL WASTE WATER TREATMENT PLANT
18	GUN RANGE LABORATORY
19	COMPASS ROSE
20, 20A	ELECTRICAL SUBSTATION AND PUMP HOUSE
21	MAINTENANCE BUILDING
22	GARAGE BUILDING
23	COOLING TOWER
24	PEDESTRIAN UNDERPASS (EAST)
25, 25A	WIND TUNNEL (LOW SPEED) UNIT SUBSTATION
238	V/STOL TEST FACILITY

BLDG NO.	DESCRIPTION
26	PUMP HOUSE (FIRE PROTECTION)
26A	STORAGE TANK (FIRE PROTECTION)
27	MANUFACTURING BUILDING
28	FUEL SYSTEM LABORATORY
29	FABRICATION BUILDING
29A	COMPOSITES MANUFACTURING
30, 30A	PEDESTRIAN UNDERPASS (WEST)
32	OFFICE BUILDING
33	OFFICE BUILDING
34	OFFICE BUILDING
39	OIL STORAGE BUILDING
40	RAMP SERVICE BUILDING
41	CHEMICAL STORAGE BUILDING
42	PRODUCTION HANGAR
43	RAMP UTILITIES BUILDING
43A B C D	STORAGE TANKS (RAMP WATER AND AIR
44	PUMP HOUSE (FIRE PROTECTION)
44A, B	STORAGE TANK (FIRE PROTECTION)
45	PRODUCTION HANGAR
45A B F G H	RAMP SHELTERS
45C D E	HUSH HOUSES
45J	RADAR COOLING EQUIPMENT BUILDING
45K	FUEL SYSTEM WORK FACILITY
45L	HUSH HOUSE #4
46	FUEL FILTER BUILDING
48	RAMP PAINT BOOTHS
49, 49A	WATER CHECK FACILITY
51	MANUFACTURING BUILDING
52	MANUFACTURING BUILDING
53	BOILER HOUSE
55	SERVICE BUILDING
55A	STORAGE BUILDING
56	BOILER HOUSE
211, 214	GUARD SHELTERS
215	BUS SHELTER (McDONNELL BLVD)
216	DIE STORAGE RACK
220	COMPOSITES MANUFACTURING
220A	UNIT SUBSTATION
221	OFFICE & ENGINEERING LABS

MCDONNELL DOUGLAS CORPORATI

Hazardous Waste Streams and Shipping Names
Tract I Annuals

MO ID	Product/Tank Usage Area	Proper Shipping Name	Other EPA Codes	HAZ Constituents/ Underlined HAZ Constituents	Specific Gravity
	B.27-158B, Tank 51, Plating Area Ammonia Persulfate	RQ, Waste Corrosive Liquids, N.O.S. (Ammonia Persulfate) 8, UN1760, PG II (D002) ERG # 60	D006	Chrome	1.0
003	B.27-158B, Tank 49, Plating Tanks Nitric/Chromic Acid	RQ, Waste Chromic Acid Solution 8, UN1755, PG II (D002/D007) ERG # 60	D006		1.0
003	B.27-162, Tank S-2, Aluminum Line Nitric Acid/Sodium Dichromate	RQ, Waste Corrosive Liquids, N.O.S. (Nitric/Chromic Acid) 8, UN1760, PG II (D002) ERG # 60	D007	Lead, Nickel	1.20
008 (a)	B.27-162, Tank 7, Aluminum Line Nitric Acid/Amehem 7/Amchem 17 Replenisher	RQ, Waste Corrosive Liquids, N.O.S. (Nitric/Chromic Acid) 8, UN1760, PG II (D002/D007) ERG # 60			1.16
008 (b)	B.27-162, Tank 18, Aluminum Line Nitric Acid/Amehem 7/Amchem 17 Replenisher	RQ, Waste Corrosive Liquids, N.O.S. (Nitric/Chromic Acid) 8, UN1760, PG II (D002/D007) ERG # 60			1.05
010 (a)	B. 27-158B, Tank 38, Plating Area Sulfuric Acid , Sod. Dichromate	RQ, Waste Sulfuric Acid, Spent 8, UN1832, PG II (D002) ERG # 39	D006/D007	Selenium	1.10
010 (b)	B.27-162, Tank J, Aluminum Line Sulfuric Acid w/Chrome	RQ, Waste Sulfuric Acid, Spent 8, UN1832, PG II (D002) ERG # 39	D007		1.23
010 (c)	B.27-162, Tank K, Aluminum Line Sulfuric Acid w/ Chrome	RQ, Waste Sulfuric Acid, Spent 8, UN1832, PG II (D002) ERG # 39	D007		1.18
010 (d)	B.27-162, Tank T-5, Titanium Line Sulfuric Acid w/Chrome	RQ, Waste Sulfuric Acid, Spent 8, UN1832, PG II (D002) ERG # 39	D007	Nickel, Lead	1.19
012 (a)	B.27-162, Tank 3, Aluminum Line Nitric/HF Acid	RQ, Waste Corrosive Liquids, N.O.S. (Nitric/Hydrofluoric Acid) 8, UN1760, PG II (D002) ERG # 60	D007		1.25
012 (b)	B.27-162, Tank T-8, Titanium Line Nitric/HF Acid	RQ, Waste Corrosive Liquids, N.O.S. (Nitric/Hydrofluoric Acid) 8, UN1760, PG II (D002) ERG # 60	D007	Cadmium, Lead, Nickel	1.49
013 (a)	B. 27-158B, Tank 22, Plating Area Chromic Acid	RQ, Waste Chromic Acid Solution 8, UN1755, PG II (D002/D007) ERG # 60	D006	Nickel	1.07
013(b)	B. 27-162, Tank 11, Aluminum Line Chromic Acid	RQ, Waste Chromic Acid Solution 8, UN1755, PG II (D007) ERG # 60			.97

Hazardous Waste Streams and Shipping Names
Tract I Annuals

MO ID	Product/Tank Usage Area	Proper Shipping Name	Other EPA Codes	HAZ Constituents/ Underlined HAZ Constituents	Specific Gravity
013 (c)	B.27-158B, Tank 2, Plating Tanks Chromic Acid	RQ, Waste Chromic Acid Solution 8, UN1755, PG II (D002/D007) ERG # 60	D006/D008		1.20
013 (d)	B.27-158B, Tank 3, Plating Tanks Chromic Acid	RQ, Waste Chromic Acid Solution 8, UN1755, PG II (D002/D007) ERG # 60	D006/D008		1.10
013 (e)	B.27-158B, Tank 4, Plating Area Chromic Acid	RQ, Waste Chromic Acid Solution 8, UN1755, PG II (D002/D007) ERG # 60	D006	Silver, Barium, Nickel	1.18
013 (f)	B.27-162, Tank 5, Aluminum Line Chromic Acid	RQ, Waste Chromic Acid Solution 8, UN1755, PG II (D002/D007) ERG # 60			1.07
013 (g)	B.27-162, Tank 9, Aluminum Line Chromic Acid	RQ, Waste Chromic Acid Solution 8, UN1755, PG II (D002) ERG # 60	D005/D007		1.01
016 (a)	B.27-158B, Tank 9, Plating Area Hydrochloric Acid	RQ, Waste Hydrochloric Acid, Solution 8, UN1789, PG II (D002) ERG # 60	D006/D007/ D008	Nickel	1.10
016 (b)	B.27-158B, Tank 28, Plating Area Hydrochloric Acid	RQ, Waste Hydrochloric Acid, Solution 8, UN1789, PG II (D002) ERG # 60	D006	Chromium	1.03
017	B.27-158B, Tank 15, Plating Area Ammonia Nitrate	Hazardous Waste, Liquid, N.O.S., (Ammonia Nitrate Solution) 9, NA3082, PG III (D006) ERG # 31			1.09
021	B.27-158B, Tank 33, Plating Area Sulfuric/ HF Acids	RQ, Waste Corrosive liquids, N.O.S. (Sulfuric/Hydrofluoric Acid) 8, UN1760, PG III (D002) ERG # 60	D004/D006/ D007	Nickel	1.22
023 (a)	B. 27-162, Tank S5, Aluminum Line Nitric Acid	RQ, Waste Nitric Acid Solution 8, UN2031, PG II (D002) ERG # 44	D007	Lead	1.49
023 (b)	B.27-158B, Tank 40, Plating Area Nitric Acid	RQ, Waste Nitric Acid Solution 8, UN2031, PG II (D002) ERG # 44	D006/D007/ D008	Nickel	.99
023 (c)	B.27-162, Tank T-9, Titanium Line Nitric Acid	RQ, Waste Nitric Acid Solution 8, UN2031, PG II (D002) ERG # 44	D006/D007	Lead, Nickel	1.26
024 (a)	B.27-158B, Tank 12, Plating Area Sodium Hydroxide w/Chrome	RQ, Waste Sodium Hydroxide Solution 8, UN1824, PG II (D002/D007/D008) ERG # 60	D006	Nickel	1.09

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MO ID	Product/Tank Usage Area	Proper Shipping Name	Other EPA Codes	HAZ Constituents/ Underlined HAZ Constituents	Specific Gravity
024 (b)	B.27-158B, Tank 14, Aluminum Line Sodium Hydroxide w/Chrome	RQ, Waste Sodium Hydroxide Solution 8, UN1824, PG II (D002) ERG # 60	D006/D007/ D008	N/A	1.3
024 (c)	B.27-158B, Tanks 10 & 30, Plating Area Sodium Hydroxiode w/Chrome	RQ, Waste Sodium Hydroxide Solution 8, UN1824, PG II (D002) ERG # 60	D006/D007/ D008		1.0
24 (d)	B.27-162, Tank T-1, Titanium Line Sodium Hydroxide w/Chrome	RQ, Waste Sodium Hydroxide Solution 8, UN1824, PG II (D002) ERG # 60	D007	Lead, Nickel	1.25
025 (a)	B.27-162, Tank 20, Aluminum Line Sodium Hydroxide Non-Hazardous	Sodium Hydroxide Solution 8, UN1824, PG II ERG # 60			1.01
025 (b)	B.27-162, Tank T-2, Titianium Line Sodium Hydroxide Solution (No Chrome)	RQ, Waste Sodium Hydroxide Solution 8, UN1824, PG II (D002) ERG #		Chrome	1.61
028	B.27-162, Tank M, Aluminum Line Potassium Dichromate	Hazardous Waste, Liquid, N.O.S (Potassium Dichromate Solution) 9, NA3082, PG III (D007) ERG # 31			1.04
029 (a)	B.27-162, Tank 1, Aluminum Line Sodium Tetraborate Non-Hazardous	Waste Caustic Alkali Liquids, N.O.S. (Sodium Tetraborate) 8, UN1719, PG II ERG # 60	D007		1.02
029 (b)	B.27-162, Tank F, Aluminum Line Sodium Tetraborate	Waste Caustic Alkali Liquids, N.O.S. (Sodium Tetraborate) 8, UN1719, PG II ERG # 60		Chrome	1.03
038	Red Dumpster Waste	RQ, Hazardous Waste Solid, N.O.S. (Paint/Solvent Contaminated Material) 9, NA3077, PG III, (D007) ERG # 31	F002/F003/ F005	F002-TCE F003, MIBK, Xylene F005-MEK, Toluene	1.01
041 (a)	Chlorinated Solvents	RQ, Halogenated Irritating Liquids, N.O.S. (Use Specific Chlorinated Solvents) 6.1, UN1610, PGIII, (D040/F002) ERG # 58			1.3
041 (b)	Trichloroethylene (TCE)	RQ, Waste Trichloroethylene 6.1, UN1710, PGIII (D040/F001) Vapor Degreaser (D040/F002) Non-Vapor Degreaser ERG # 74			1.3
042 (a)	Waste Jet Fuel	RQ, Waste Fuel, Aviation, Turbine Engine 3, UN1863, PG II (D001)ERG # 27			.80

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MO ID	Product/Tank Usage Area	Proper Shipping Name	Other EPA Codes	HAZ Constituents/ Underlined HAZ Constituents	Specific Gravity
042 (b)	Jet Fuel Off-Spec	Fuel, Aviation, Turbine Engine 3, UN1863, PGII ( ) ERG # 27			.80
043	Flammable Solvent/Paint Waste	RQ, Waste Paint Related Material 3, UN1263, PG III (D001/D007) ERG # 26	D035/F002 F003/F005	F002-Methylene Chloride, Trichloroethane F003-Ethyl Acetate, N-Butyll, Alcohol, MIBK, Ethylbenzene, Xylene, Cyclohexanone, Butyl Acetate, Methanol, Acetone F005-MEK, Toluene, Benzene, Isbutyl Alcohol	.99
044 (b)	Used Oil	Used Oil Non-Regulated			1.05
045	Flammable/Chlorinated Solvents	RQ, Waste Flammable Liquids, N.O.S. (Flammable/Chlorinated Solvents)3, UN1993, PGII (D001/D007) ERG # 26	D035/D039 D040/F002 F003/F005	F002- Trichloroethane, Trichloroethylene, Methylene Chloride, Chlorobenzene F003-Ethyl Acetate, N-Butyl, Alcohol, MIBK, Ethylbenzene, Xylene, Cyclohexanone, Methanol, Acetone, Ether Ether F005-MEK, Toluene, Isbutyl Alcohol	1.01
047	Chlorinated Oil	Hazardous Waste, Liquid, N.O.S (Oil Contaminated with Chlorinated Solvents) 9, NA3082, PG III, ( ) ERG # 31	D035/D039 D040/F002 F003/F005	F002- Trichloroethane, Trichloroethylene F003- MIBK, Xylene, Cyclohexanone, F005-MEK	.98
053	Acid, Alkaline Spill Clean-up	RQ, Waste Corrosive Solids, N.O.S. (Use Specific Chemical)8, UN1759, PGII (D002) ERG # 60			1.5
056	B.27-158B, Tank 35, Plating Area Ethylene Diamine, Nitric, Sulfonic Acid Solution	Hazardous Waste, Liquid, N.O.S. (Nitric/Sulfonic Acid Solution) 9, NA3082, PG III (D006) ERG # 31		Silver, Chromium, Nickel	1.19
080	Tract I Flammable Lab-Pack	RQ, Waste Flammable Liquids, N.O.S. (Flammable Laboratory Chemicals-Lab Pack) 3, UN1993, PG II, (D001) ERG # 27			
080	Tract I Corrosive Lab-Pack	RQ, Waste Corrosive Liquids, N.O.S. (Corrosive Laboratory Chemicals-Lab Pack) 8, UN1760, PG II, (D002) ERG # 60			
082	B.27-162, Tank T-6, Titanium Line	RQ, Waste Corrosive Liquids, N.O.S. (Nitric/Hydrofluoric/Phosphoric Acid) 8, UN1760, PG II, (D002) ERG # 60	D004/D007	Cadmium, Nickel	1.37

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MO ID	Product/Tank Usage Area	Proper Shipping Name	Other EPA Codes	HAZ Constituents/ Underlined HAZ Constituents	Specific Gravity
091	Acid Sludge	RQ, Waste Corrosive Solids, N.O.S. (Use Specific Acid Sludge) 8, UN1759, PG II (D002) ERG # 60	Use Tank Code	(Use tank elements)	1.32
092	Alkaline Sludge	RQ, Waste Corrosive Solids, N.O.S. (Use Specific Alkaline Chemical) 8, UN1759, PG II (D002) ERG # 60	Use Tank Code		2.10
)26	B. 27-158B, Tank 24, Plating Area Sulfuric Nickel/Boric Acid	Waste Nickel Solution Non-hazardous			1.13
026	B.27-158B, Tank 27A, Plating Area Tanks 17, 27A, 46 Sodium Cyanide/Cadmium Solution	RQ, Waste Corrosive Liquid, Poisonous, N.O.S. (Sodium Cyanide) 8, UN2922, PGII (D003/D006) ERG # 59	D007/F007		1.08

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MO ID	Product/Tank Usage Area	Proper Shipping Name	Other EPA Codes	HAZ Constituents/ Underlined HAZ Constituents	Specific Gravity
	B.52, Tank S1 Ammonia Bifluoride Solution	Hazardous Waste, Liquid, N.O.S. (Ammonia Biflouride Solution) 9, NA3082 PG III ( ) ERG # 31	D004	Mercury	1.01
003	B.220, Tank D Nitric Chromic Acid, Passajell	RQ, Waste Corrosive Liquids, N.O.S. (Nitric/Chromic Acid) 8, UN1760, PG II (D002, D007) ERG # 60	D008	Nickel	1.17
010	B.220, Tank 5 Sulfuric Acid/Pott. Dichromate (Chrome)	RQ, Waste Sulfuric Acid, Spent 8, UN1832, PG II (D002/D007) ERG # 39	D008	Nickel	1.28
012 (a)	B.52, Tank T-3 Nitric/HF Acid Alumium Desmut	RQ, Waste Corrosive Liquids, N.O.S. (Nitric/Hydrofluoric Acid) 8, UN1760, PG II (D002) ERG # 60	D007/D008	Nickel	1.21
012 (b)	B.52, Tank S3 Nitric/HF Acid Titanium Pickle	RQ, Waste Corrosive Liquids, N.O.S. (Nitric/Hydrofluoric Acid) 8, UN1760, PG II (D002) ERG # 60	D004/D007/ D008	Cadmium, Nickel	1.32
012 (c)	B.52, Tank S5 Nitric/HF Acid Titanium Pickle	RQ, Waste Corrosive Liquids, N.O.S. (Nitric/Hydrofluoric Acid) 8, UN1760, PG II (D002) ERG # 60	D007/D008	Cadmium, Nickel	1.36
024	B.220, Tank A Turco ARR/Sodium Hydroxide (Contains Chrome)	RQ, Waste Sodium Hydroxide Solution 8, UN1824, PG II (D002) ERG # 60	D007	Silver, Nickel, Lead	1.24
025 (a)	B.2, Level 1, Dept. 126B Sodium Hydroxide Solution (Non- Hazardous)	Sodium Hydroxide Solution 8, UN1824, PG II ( ) ERG #60			1.04
025 (b)	B.72-442E Sodium Hydroxide (No-Chrome)	RQ, Waste Sodium Hydroxide Solution 8, UN1824, PG II (D002) ERG # 60		Chrome, Silver	1.11
029 (a)	B. 220, Tank 2 Turco 4215S Sodium Tetraborate	Hazardous Waste, Liquid, N.O.S. (Sodium Tetraborate) 9, NA 3082, PGIII ERG # 31	D007		1.03
029 (b)	B.245-431-4 Sodium Tetraborate	Non-Hazardous Per Annual			1.08
035 (a)	B.52, Tank T-1 Sodium Hydroxide	RQ, Waste Sodium Hydroxide Solution 8, UN1824, PG II (D002) ERG # 60	D007	Silver, Mercury	1.35
035 (b)	B.52, Tank T-6 Sodium Hydroxide	RQ, Waste Sodium Hydroxide Solution 8, UN1824, PG II (D002) ERG # 60	D007		1.36

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MO ID	Product/Tank Usage Area	Proper Shipping Name	Other EPA Codes	HAZ Constituents/ Underlined HAZ Constituents	Specific Gravity
036	B.14, WWT Plant Wastewater Treatment Sludge	RQ, Hazardous Waste, Solid, N.O.S. (Wastewater Pretreatment Sludge) 9, NA3077, PG III (F006, F019) ERG # 31		Chromium	1.01
037 (a)	B. 2, Level 1, Oil Crib V. S. 653	Used Emulsified Cutting Oil Non-Regulated			1.05
037 (b)	B.276-444 Bio-cool 500	Used Emulsified Cutting Oil Non-Regulated			.99
038	Red Dumpster Waste	RQ, Hazardous Waste, Solid, N.O.S. (Paint/Solvent Contaminated Material) 9, NA3077, PG III, (D007) ERG # 31	F002/F003/ F005	F002- TCE F003- MIBK, Xylene F005- MEK, Toluene	1.01
041	Chlorinated Solvents	RQ, Halogenated Irritating Liquids, N. O.S. (Specific Chemical) 6.1, UN1610, PGIII (D040/F002) ERG # 58			1.3
041	Trichloroethylene (TCE)	RQ, Waste Trichloroethylene 6.1, UN1710, PGIII (D040/F001) Vapor Degreaser (D040/F002) Non-Vapor Degreaser ERG # 74			1.3
042 (a)	Waste Jet Fuel	RQ, Waste Fuel, Aviation, Turbine Engine 3, UN1863, PGII (D001) ERG # 27			.80
042 (b)	Jet Fuel Off Spec	Fuel, Aviation, Turbine Engine 3, UN1863, PGII ERG # 27			.80
043	Flammable Solvent/Paint Waste	RQ, Waste Paint Related Material 3, UN1263, PG III (D001/D007) ERG # 26	D035/F002/ F003/F005	F002-Methylene Chloride, Trichloroethane F003-Ethyl Acetate, N-Butyll, Alcohol, MIBK, Ethylbenzene, Xylene, Cyclohexanone, Butyl Acetate, Methanol, Acetone F005-MEK, Toluene, Benzene, Isbutyl Alcohol	.99
044	Tract I South Used Oil	Non-regulated Used Oil			
045	Flammable/Chlorinated Solvents	RQ, Waste Flammable Liquids, N.O.S. (Flammable, Chlorinated Solvents) 3, UN1993, PGII (D001/D007) ERG # 26	D035/D039/ D040/F002/ F003/F005	F002- Trichloroethane, Trichloroethylene, Methylene Chloride, Chlorobenzene F003-Ethyl Acetate, N-Butyl, Alcohol, MIBK, Ethylbenzene, Xylene, Cyclohexanone, Methanol, Acetone, Ether Ether F005-MEK, Toluene, Isbutyl Alcohol	1.01

Hazardous Waste Streams and Shipping Names
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MO ID	Product/Tank Usage Area	Proper Shipping Name	Other EPA Codes	HAZ Constituents/ Underlined HAZ Constituents	Specific Gravity
047	Chlorinated Oil	Hazardous Waste, Liquid, N.O. S. (Oil Contaminated with Chlorinated Solvents) 9, NA3082, PGIII, ( ) ERG # 31	D035/D039/ D040/F002/ F003/F005	F002- Trichloroethane, Trichloroethylene F003- MIBK, Ethylbenzene, Xylene, Cyclohexanone, Methanol, Acetone, Ether Ether F005-MEK	.98
053	Acid/Alkaline Spill Clean-Up	RQ, Waste Corrosive Solids, N.O.S. (Use Specific Chemical) 8, UN1759, PGII (D002) ERG # 60			1.5
075	B.220-180 Calcium Hydroxide (System 7 Mold Material)	RQ, Waste Corrosive Liquids, N.O.S. (Calcium Hydroxide) 8, UN1760, PG II (D002) ERG # 60			1.23
080	Corrosive Lab-Pack	RQ, Waste Corrosive Liquids, N.O.S (Corrosive Laboratory Chemicals-Lab Pack) 8, UN1760, PG II, (D002) ERG # 60			
080	Flammable Lab-Pack	RQ, Waste Flammable Liquids, N.O.S., (Flammable Laboratory Chemicals-Lab Pack) 3, UN1993, PG II, (D001) ERG # 27			
095	2 Level 1-126B Formic/Gluconic Acid/HF	RQ, Waste Corrosive Liquids, N.O.S. (Hydrofluoric Acid, Formic Acid) 8, UN1760, PG II, (D002) ERG # 60	—	Barium, Cadmium, Chrome	1.08
098	B. 276, Dept. 444 V. S. 759	Waste Coolant			.99